



Energy for
generations

LOW CARBON FARMING - GREENHOUSES PROJECT

September 2021

THE PROJECT



ESB Smart Energy Services (SES) were contracted to deliver GB's largest renewable electric heating project to provide heat to 30 Hectares of Glasshouses across two sites

Investor Owned Glasshouses in Norwich and Bury



PROJECT DETAILS



Crown Point Estate, Norwich

- > 16.1Ha Glasshouse
- > AWS Site 2km's away –
Heat source from treated final effluent

SES Scope

Technology	System Size		Plant
Peak GSHP (AWS) System Total Output	33,434	kWth	16x 2121 kWth Heat pumps
Peak CHP Electrical Output	3,600	kWe	3x 1,200 kWe CHP units
Gas Boilers Output	15,000	kWth	1x 8,140 kW and 1x 7,000 kW Gas Boilers

Place Farm, Bury St Edmunds

- > 12.8Ha Glasshouse
- > AWS Site 2km's away –
Heat source from treated sewage

SES Scope

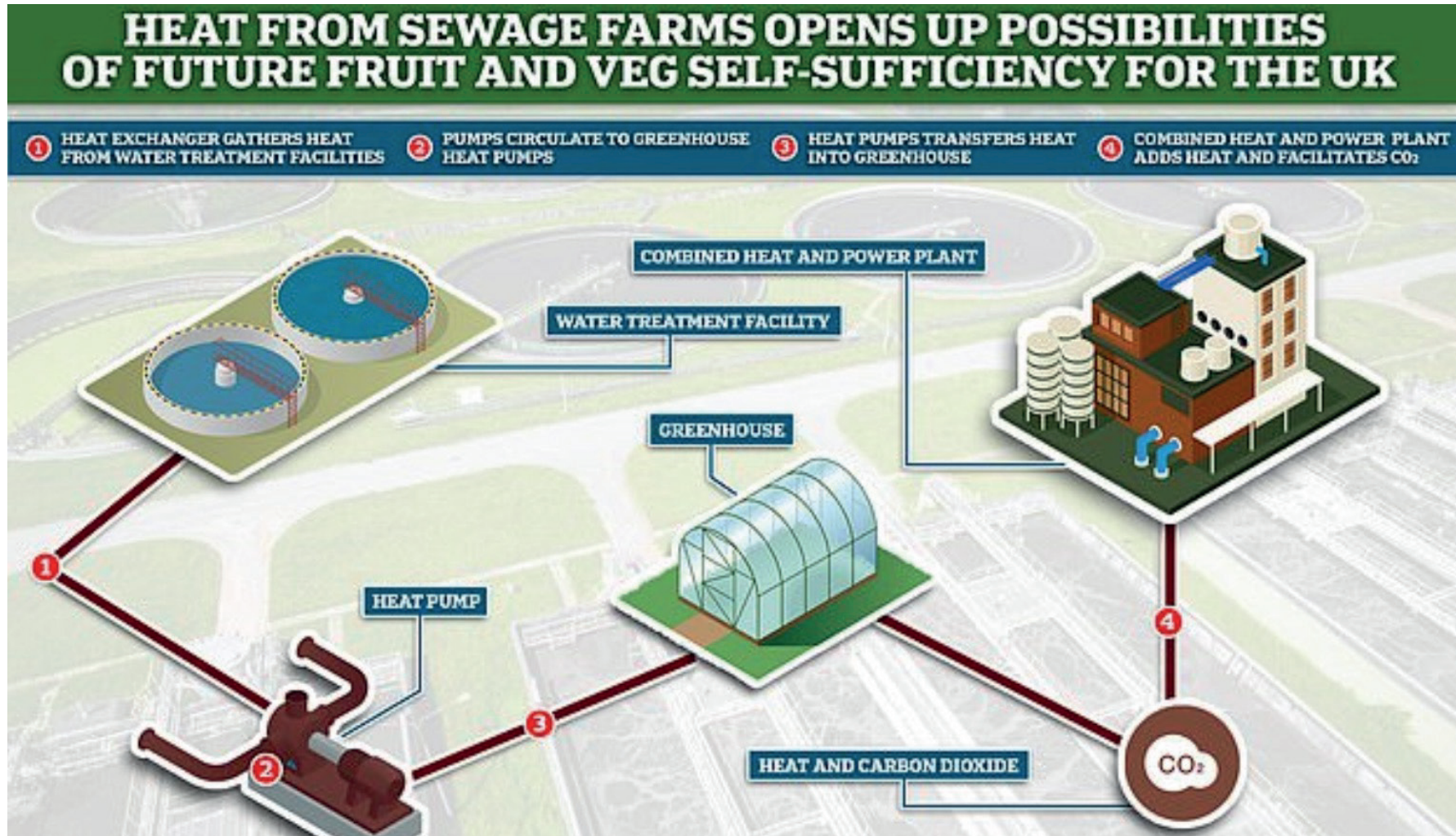
Technology	System Size		Plant
Peak GSHP (AWS) System Total Output	26,396	kWth	13x 2121 kWth Heat pumps
Peak CHP Electrical Output	2,400	kWe	2x 1,200 kWe CHP units
Gas Boilers Output	12,000	kWth	2x 6,400 kW Gas Boilers

SCALE



10x
CROKE PARK

SOLUTIONS OVERVIEW



THE HEAT PUMPS



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CROWN POINT NORWICH ENERGY CENTRE



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CROWN POINT NORWICH GREENHOUSE



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KEY TAKEAWAYS

- › There are lots of applications where heat pumps can be deployed now, with multiple heat sources
- › Systems integration with waste heat streams is key
- › Integration with other technologies (e.g. CHP) may still be required – but overall energy and carbon footprint of the site can be greatly reduced

FÁILTE / THANKS



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Link

<https://www.bbc.com/news/av/technology-53178463/hi-tech-greenhouses-to-supply-uk-stores-with-food>